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PATENT APPLICATION
SERIAL NO. 09/224, 376



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Joseph C. Harvell

Serial Number: 09/224, 376

Filed: December 31, 1998

For: DYNAMIC TOPOLOGY NOTIFICATION
EXTENSIONS FOR THE DOMAIN
NAME SYSTEM

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Group Art Unit: 2154

Examiner: Chang, Jungwon

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Bradley D. Ellis
Bradley D. Ellis

RESPONSE

Dear Sir:

In response to the Final Action dated May 3, 2004 ("Final Action"), Applicant responds
as follows:

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42. (Previously Presented) The method of Claim 37, wherein the heartbeat is generated by at least one computer within a domain name zone.

43. (Currently Amended) A method for implementing a heartbeat protocol comprising:
sending, directly to one or more selected servers, heartbeat messages from a single selected computer, indicating the availability of computer resources on one or more computers, such that loss of heartbeat messages from the single selected computer in a network associated with the single selected computer is indicative that all computer resources on the one or more computer are unavailable, and the presence of a heartbeat from the single selected computer is indicative that all computer resource on the one or more computer are unavailable, and the presence of a heartbeat from the single selected computer is indicative that all computers are available;

generating a message by the single selected computer in accordance with the heartbeat protocol to indicate the availability status of the one or more computer resources; and

transmitting the message to the one or more selected servers, wherein acknowledgements of unavailability to computers that indicate unavailability are provided.

44. (Currently Amended) A method for implementing a heartbeat protocol, comprising:

directly receiving heartbeat messages sent by a single selected computer to one or more selected servers in a network associated with the single selected computer, the heartbeat messages indicating the availability of resources on one or more computers, such that loss of heartbeat from the single selected computer is indicative that all computer resources are unavailable, and the presence of a heartbeat from the selected computer is indicative that all computer resources are available;